SYSTEM AND METHOD FOR DETECTING CARDIAC ISCHEMIA USING AN IMPLANTABLE MEDICAL DEVICE

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Abstract of the Disclosure

A technique is provided for detecting episodes of cardiac ischemia based on an examination of post-T-wave signal segments. Since cardiac ischemia is often a precursor to acute myocardial infarction (AMI) or ventricular fibrillation (VF), the technique thereby provides a method for predicting the possible onset of AMI or VF so that a warning may be delivered to the patient. The warning preferably includes both a perceptible electrical notification signal applied directly to subcutaneous tissue and a warning signal delivered via short range telemetry to a handheld warning device external to the patient. In one example, the onset of cardiac ischemia is identified by detecting a sharp falling edge within post-T-wave signals by filtering the signals using a high-pass filter having a cutoff frequency of at least 1 Hz. The total amount of energy in the filtered signal is calculated and compared against various thresholds.